/336 cont./ Masses

133 of water, created by the melting of glaciers after the outbreak of
[731] a new stream of lava, have reached the low country of Mácas and caused terrible destruction. These districts are also not in-
[823] frequently plagued by earthquakes. Thus the Indian knows from his own experience the far-reaching, fearful power of the volcano, which he venerates with only shy reverence from a distance.

I should like to remark here that it is not, as is sometimes maintained, the inner heat of the Sangay or the bottomless masses of ashes which prevent climbing; on the contrary, the essential and sole difficulty lies in the magnificent glaciation of the steep cone, which extends down to 4,300 meters above sea level.

197 The language of the Jívaros is essentially different from Quechua, so that the Indians of Riobamba could not make themselves understood. It sounds beautiful and has a certain masculine
802 seriousness. For counting, the five fingers of the hand are used as a base, then one hand + 1, etc. To what extent higher number concepts are present I could not find out through my untrained interpreters.

177 I should like to be permitted to add in conclusion a few
648 words about the future of these Indians and the possibility of making our culture accessible to them -- Civilizatory attempts were never undertaken by the Spanish or Hispano-American parties; in all attempts of this type it was always only a matter of the subjugation and exploitation of the Indians. The Jívaros understand this well and therefore resist any intrusion in their territory. The Ecuadorians can /337/ accomplish nothing by force. If the Indians are left to themselves, however, they will, as I have shown in the description of the warfare, gradually destroy themselves. After what I have seen among the Jívaros, it does not seem at all too difficult to me to fit this people into our cultural development. Intelligent, ambitious, vain, and endowed with a sense for clean, orderly housekeeping, it would be easy to increase their needs by the gradual introduction of European industrial products, to evoke the desire to acquire

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came down in large numbers to try their luck at gold mining. Unlike their sixteenth-century predecessors, they did not usually attempt to coerce the Jívaro as conquerors, but came as individual prospector-miners. The fact that the Jívaro were fairly well equipped with firearms by this time,[33] probably contributed to this situation. When conflicts with the Jívaro occurred, they were usually settled, one way or another, directly by the individuals involved.

The gold rush reached its peak in 1937, at which time the boom town of Méndez seems to have approached a population of about three thousand—far above that of Macas. Shortly, however, a decline in mining profits took place, and many of the white prospector-miners returned to the highlands. Others remained to settle permanently in the Upano, Paute, and Zamora valleys.

During these gold rush years, the first horse trail had been built into the Jívaro region, connecting the highland province of Azuay with Méndez, and after the boom was over, the trail was kept open by the Salesian missionaries. Gradually, Azuay mestizos, some of them ex-miners, began to immigrate into the region with their families to raise cattle, which they could then drive out over the trail to the city of Cuenca to obtain cash. The local Jívaro at first generally welcomed the settlers as a new source of factory-manufactured goods, particularly machetes and muzzle-loading shotguns, which they received for clearing the forest to make pastures for the colonists' cattle.

Cattle raising proved successful, and soon more colonists arrived. As their numbers increased and they were augmented by military and police units, their fear of the Jívaro diminished, and they began seizing the Indians' garden clearings for pastures. The Jívaro say that over half of their Upano Valley population also died at this time of epidemics of contagious

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175 diseases carried by the colonists and that this depopulation
648 greatly facilitated the seizure of Jívaro gardens by the whites.
[731] As the frontier of the white settlement pushed inexorably up
[101] the Río Upano Valley in the direction of Macas, many Jívaro
[161] lost their lands to the new immigrants, and often fled eastward across the Cordillera de Cutucú, or moved northward to the Río Chiguasa region.

175 Around 1941, Jívaro-white relations became extremely
648 tense due to the war between Peru and Ecuador. Ecuadorian
72 troops attacked a Jívaro neighborhood near the Río Santiago
669 reportedly because they believed that the Indians were from Peru and led by Peruvian army officers. In the resulting bloodshed, seventy-seven Ecuadorians and an unknown number of Jívaro, including women and children, were reportedly killed. The other Jívaro began to fear that the Ecuadorians
[619] planned to exterminate all of them to get their lands. Almost all the Jívaro neighborhoods along the frontier of Ecuadorian colonization rapidly called a truce among themselves and made secret plans to conduct a co-ordinated revolt at the first sign of a general attack by the Ecuadorians. Elaborate strategic plans and tactical assignments were agreed upon by the leading warriors of the normally feuding neighborhoods. Undoubtedly the mechanics of making this emergency alliance were very similar to those involved in the destruction of the Spaniards in 1599. However, the planned revolt never was initiated because the expected Ecuadorian offensive against the Jívaro did not occur.

175 A few years later, the Salesian missionaries persuaded
648 the government of Ecuador to set aside certain lands in the
797 Upano Valley as church-administered reservations for use by missionized Jívaro. Protestant evangelist missionaries also subsequently obtained a small land grant for a similar purpose
101 in the same valley, around 1950. Today almost all the frontier
648
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highland province of Azuay in the 1930's, many more Jívaro families migrated eastward to escape harassment. Thus it seems evident that the population of the interior Jívaro has been substantially augmented by migration for at least a century.

The picture is less clear with regard to the demographic effects of disease upon the interior Jívaro. Epidemics of contagious disease, especially measles and whooping cough, appear to have had devastating effects in the twentieth century among these people. Informants claim that in some cases half of the populations of their neighborhoods were wiped out in a single epidemic. It is difficult to evaluate such statements, but they are not inconsistent with what we know of the effects of such diseases on other South American forest Indians under observation at times when they were struck by measles and smallpox. In addition, common colds and similar respiratory ailments easily reach epidemic proportions among the Jívaro, with complications of a fatal nature being common, especially among infants and the elderly. The fear of colds is so great that it can act as a barrier to acceptance of the anthropological fieldworker, who must, of course, take every precaution to be sure that he and his companions are not, in fact, bringing the disease.

Malaria is endemic, but is recognized by elderly informants as being an anciently introduced disease "brought by Jívaro coming back from Peru." The Jívaro believe that it is transmitted when sharing the bowl in which manioc beer is served. It would seem highly likely that malaria, an Old World disease, which possibly has been present among the Jívaro since the sixteenth century, has had substantial effects on their rate of mortality and thus upon their long-range population size and density. Again, however, the lack of